

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 14

UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte RICHARD W. STICKLES and JOHN L. HALPIN

Appeal No. 2001-0299
Application No. 08/993,861

ON BRIEF

Before ABRAMS, NASE and BAHR, Administrative Patent Judges.
BAHR, Administrative Patent Judge.

ON REQUEST FOR REHEARING

This is a decision on appellants' request for rehearing (Paper No. 13) of our decision mailed June 26, 2002 (Paper No. 12) sustaining the examiner's rejections of claims 1, 2, 7, 8, 11, 12, 14 and 15 as being anticipated by Koch, of claims 1 and 12 as being anticipated by Angel and of claims 7-9 and 14 as being anticipated by Dooley.

The rejection based on Koch

Appellants' request (page 3) takes issue with this panel reading the tubular body of the swirl cup of claim 1 on structure including the shell 4 of Koch on the basis that the shell 4 is identified by Koch as a primary combustion chamber, not a swirl cup. At the outset, we note that, while anticipation requires the disclosure of each and every limitation of the claim at issue in a single prior art reference, it does not require such disclosure in haec verba. In re Bode, 550 F.2d 656, 660, 193 USPQ 12, 16 (CCPA 1977). Thus, the fact that Koch does not refer to the guide tube 17, conical wall 36 and shell 4 as a "swirl cup" does not preclude a finding of anticipation of the subject matter of claim 1 based on Koch. Koch's shells 4 do form structures which Koch refers to as primary combustion chambers 1 because the fuel and air mixtures therein are ignited by flames in the secondary combustion chamber 2 produced by starting burner 5. None of the shells 4 is provided with a dedicated pilot burner P, as is the starting burner 5 of Koch. We have reviewed appellants' discussion of swirl cups in the background section of appellants' specification but we find therein no express definition of "swirl cup" which precludes traveling of flames thereinto from a combustion chamber (e.g., the secondary chamber 2 of Koch or neighboring shells 4). In fact, the omission of the venturi from appellants' inner swirl cups would appear to permit the flame front from the combustion chamber 18d to travel into the swirl cups (see specification, page 2, lines 29-31). For the foregoing reasons, appellants' argument that Koch refers to the shell 4 as forming a primary combustion chamber 1 does not persuade us that we committed any error in

our characterization of the guide tube 17, wall 36 and shell 4 as a tubular body of the swirl cup of claim 1.

As for appellants' suggestion that our earlier decision failed to point out the structure in Koch corresponding to the "inlet at one end" and the "outlet at an opposite axial end" recited in claim 1, we disagree. From our perspective, it is clear from our discussion in the paragraph bridging pages 10 and 11 of our earlier decision that we consider the "inlet¹ at one end" to be that portion of the tubular body, formed by the guide tube 17, conical wall 36 and shell 4, upstream of the conical wall 36 (i.e., the guide tube 17). While the end of the guide tube 17 is not illustrated in Figure 2, it certainly has one, as we expressed on page 12 of our earlier decision). Appellants cannot seriously contend that the tube 17 is endless. Moreover, appellants' assertion that the guide tube 17 does not receive the fuel injection nozzle 27 is not well founded. While the nozzle 27 is not located at the inlet end of guide tube 17, claim 1 contains no such requirement. All that claim 1 requires is that the inlet be capable of receiving a nozzle. In that Koch's nozzle 27 and the fuel supply tube 10 to which it is connected pass through the inlet end of the guide tube 17 and are received in the guide tube 17, the guide tube 17, and even, in fact, the inlet end of the guide tube 17, is certainly capable of receiving and does receive the nozzle. With respect to the "outlet at an

¹ In this regard, we note that an "inlet" is not itself an end, but rather a "passage" (Webster's New World Dictionary, Third College Edition (Simon & Schuster, Inc. 1988)). As such, the entire guide tube, not just its upstream or inlet end, is considered to be the "inlet" as recited in claim 1.

opposite axial end," the outlet is defined by the shell 4, including its neck shaped upstream portion which abuts the swirl plates 14, as well as its outlet end.

Appellants' contention (request, page 5) that claim 1 positively recites a fuel nozzle is simply in error. The language "for receiving a fuel injection nozzle" requires nothing more than that the inlet be capable of receiving a fuel nozzle and is not a positive recitation of a fuel nozzle actually received in the inlet.² Appellants' reliance on In re Stencel, 828 F.2d 751, 754-55, 4 USPQ2d 1071, 1073 (Fed. Cir. 1987) and Kropa v. Robie, 187 F.2d 150, 155-59, 88 USPQ 478, 483-87 (CCPA 1951) as support for the position that the language "for receiving a fuel injection nozzle" in claim 1 positively recites a fuel injection nozzle is misplaced. First, the language at issue here is not preambular language as was the language at issue in Stencel and Kropa. Second, and more importantly, the body of appellants' claim 1 is devoid of any language which imparts any structural limitation on the inlet of the swirl cup beyond its capability of receiving a fuel injection nozzle therein. In any event, the issue of whether a fuel injection nozzle is positively recited in claim 1 is moot in light of the disclosure of nozzle 27 by Koch, as discussed above.

Appellants' argument (request, page 8) that the swirl device 18 of Koch is attached at the downstream end of the guide tube, not its upstream end, does not appear to have any relevance to claim 1, which does not require attachment of the row

² Language such as "a fuel injection nozzle received in said inlet" would constitute positive recitation of a fuel nozzle.

of first swirl vanes at the upstream end of the tubular body. Rather, claim 1 recites a row of first swirl vanes "attached to said septum adjacent said body inlet." The swirl device 18 of Koch is attached to the septum (conical wall 36) adjacent³ the guide tube 17.

We have not overlooked the fact that claim 1 recites swirl vanes for channeling air "into said body" (see request, page 8). In that the claim does not require that the swirl vanes channel air into the inlet end of said body, the fact that the swirl device 18 channels air into the tubular body at a location at the downstream end of the guide tube portion thereof is of no relevance in determining whether the subject matter of claim 1 is anticipated by Koch.

Appellants' argument on page 9 of the request that "[t]he swirl plates 14 are clearly not illustrated in figure 2 of Koch as being adjacent the swirl device 18, but significantly remote therefrom" was not presented in appellants' brief and thus is untimely in the request for rehearing. It therefore will not be considered in this decision on rehearing. See In re Schreiber, 128 F.3d 1473, 1479, 44 USPQ2d 1429, 1433 (Fed. Cir. 1997) and In re Kroekel, 803 F.2d 705, 708, 231 USPQ 640, 642-43 (Fed. Cir. 1986) (the failure of an appellant to present an argument before the Board of Patent Appeals and Interferences, prior to the submission of a request for reconsideration, constitutes a waiver of such an argument). See also Ex parte Hindersinn, 177 USPQ

³ Adjacency does not require that the vanes or septum be in actual contact with the inlet, but merely that they lie near or close to the inlet. Webster's New World Dictionary, Third College Edition (Simon & Schuster, Inc. 1988).

78, 80 (Bd. App. 1971) and Ex parte Harvey, 163 USPQ 572, 573 (Bd. App. 1968) (question not presented to Board in appeal and not discussed by examiner is not appropriate for decision by Board on request for reconsideration). Note also Cooper v. Goldfarb, 154 F.3d 1321, 1331, 47 USPQ2d 1896, 1904 (Fed. Cir. 1998), wherein the Court noted that a party cannot wait until after the Board has rendered an adverse decision and then present new arguments in a request for reconsideration. In any event, appellants' argument is unsound, as a review of Koch's Figure 2 clearly illustrates the swirl device 14 adjacent the swirl device 18, the two swirl devices being separated only by the conical wall 36, akin to the first and second rows of swirl vanes 34, 36 in appellants' Figure 2 being separated by the septum 32c.

As for appellants' arguments with regard to claim 2 (see pages 9-10 of the request), the downstream end of Koch's conical wall 36 (the "septum") is located axially between the swirl devices 18 and 14. While a small portion of the swirl device 14 may extend slightly upstream of the terminal point of the conical wall 36, one skilled in the art viewing Koch's Figure 2 would certainly consider the conical wall 36 as terminating axially between the swirl devices 18 and 14. Further, we find no inconsistency between this determination and the determination that the swirl device is attached to the septum, as set forth on page 11 of our earlier decision. We appreciate that, as appellants contend on page 10 of the request, the swirl device 18 could be attached to the distal end of the tube 17. However, even if this is the case, the tube 17 is attached to the

conical wall 36, such that the swirl device would be attached, albeit indirectly⁴, to the conical wall 36. In any event, in that the examiner clearly stated in both the final rejection (Paper No. 6, page 4) and the answer (Paper No. 10, page 6) that "the swirl vanes 18 [are] attached to the septum⁵" and appellants did not contest this statement in their brief, we hold that appellants' argument in the request to the effect that the swirl device 18 is not attached to the conical wall 36 is untimely and, hence, will not now be considered on rehearing. See Schreiber, 128 F.3d at 1479, 44 USPQ2d at 1433 and Kroegel, 803 F.2d at 708, 231 USPQ at 642-43. See also Hindersinn, 177 USPQ at 80; Harvey, 163 USPQ at 573; Cooper, 154 F.3d at 1331, 47 USPQ2d at 1904.

Appellants' statement (request, page 10) that "the Board overlooks that method claim 7 expressly recites fuel injection" is incorrect. In arriving at our decision, this panel fully appreciated that claim 7 positively recites a step of "injecting said fuel into an upstream end of said swirl cup⁶." As noted above and in our earlier decision, Koch discloses injecting fuel using the nozzle 27.

As for appellants' argument on page 11 of the request that Koch's nozzle 27 does not inject fuel "into an upstream end of said swirl cup," we note that claim 7, unlike claim 1, does not define the "tubular swirl cup" as comprising first and second swirlers.

⁴ Claim 1 does not require a direct attachment of the first swirl vanes to the septum.

⁵ The examiner clearly identified the septum, by marking up Koch's Figure 2 in red, as the conical wall 36.

⁶ Our statement on page 12 of the decision that claim 1 does not positively recite a fuel injection nozzle did not apply to method claim 7.

Thus, the shell 4, conical wall 36 and swirler device 14 comprise a "tubular swirl cup" as recited in claim 7. In this regard, while claim 7 does require a step of "firstly swirling a portion of said air in a first swirl direction into said swirl cup coaxially around said injected fuel," there is nothing in this limitation which requires that the step of firstly swirling be performed with structure which is part of the "tubular swirl cup." In that the fuel nozzle 27 injects fuel into the opening formed in the conical wall 36, we consider the fuel injection performed by Koch to be "into an upstream end of said swirl cup."

Appellants' statement on page 11 of the request that "[i]n Koch, air is discharged firstly from the swirl device 18, and then the fuel is discharged from the nozzle 27" appears to be correct. We see nothing in this fact, however, which is inconsistent with the swirl device 18 swirling a portion of air in a first swirl direction "into said swirl cup coaxially around said injected fuel" as called for in claim 7. While the swirl device 18 may begin swirling air before the valve 12 controlling supply of fuel to the corresponding nozzle 27 is opened (see column 3, line 57, to column 4, line 1), once the valve 12 is opened, the swirl device 18 swirls air coaxially around the injected fuel. In other words, the air exiting the swirl device 18 travels coaxially around the injected fuel stream.

Appellants, on page 12 of the request, have alleged that the Board failed to address the recitation of a "carburetor" in claim 11. We hold this argument to be untimely as it was not set forth in appellants' brief. Accordingly, it will not be considered upon rehearing. See Schreiber, 128 F.3d at 1479, 44 USPQ2d at 1433 and Kroekel,

803 F.2d at 708, 231 USPQ at 642-43. See also Hindersinn, 177 USPQ at 80; Harvey, 163 USPQ at 573; Cooper, 154 F.3d at 1331, 47 USPQ2d at 1904.

Appellants' complaint (request, page 12) that the Board "has failed to afford due weight to the means 24 for injecting fuel element expressly recited in apparatus claim 11" is entirely unfounded. As pointed out supra, the statement on page 12 of our decision that "this recitation in **claim 1** does not positively call for a fuel injection nozzle" (emphasis added) has never been applied to claim 11. Further, as pointed out above with regard to claim 7, Koch discloses a fuel nozzle 27 for injecting fuel into an upstream end of the swirl cup.

Appellants (request, page 11) also urge that "[t]he Board's cursory review of means-plus-function claim 11 is not only erroneous, but fails to recognize the examiner's complete failure in para. 4 of the final rejection to establish any basis for the rejection thereof." We recognize that the burden of proof is on the examiner, not appellants, in supporting a rejection under 35 U.S.C. § 102 (see page 11 of appellants' request). However, in appealing a rejection, appellants bear the burden and responsibility of perfecting an argument traversing the rejection in accordance with the requirements set forth in 37 CFR §§ 1.191 and 192. Specifically, as set forth in 37 CFR § 1.192(a), "[a]ny arguments or authorities not included in the brief will be refused consideration by the Board of Patent Appeals and Interferences unless good cause is shown." Further, 37 CFR § 1.192(c)(8)(C)(iii) requires that, for each rejection under 35 U.S.C. § 102, "the argument shall specify the errors in the rejection and why the

rejected claims are patentable under 35 U.S.C. 102, including any specific limitations in the rejected claims which are not described in the prior art relied upon in the rejection.”

Appellants’ entire argument in their brief (page 19) with respect to the rejection of claim 11 as anticipated by Koch reads as follows:

Claim 11 is the “means-plus-function” equivalent of claim 7, see page 5, lines 16+ for the means description. This claim is distinguishable over Koch not only for the functional differences presented above, but additionally in view of the structural differences which must be interpreted in conjunction with the specification as required by Section 112, 6th para. In this regard, the structural differences presented above for claim 1 are also applicable to claim 11.

The “functional differences above” referred to in appellants’ brief relate to the appellants’ arguments with respect to method claim 7, which were fully addressed on pages 12-13 of our decision and again, supra. As for the “structural differences presented above for claim 1,” these arguments were fully addressed on pages 11-12 of our decision and again, supra. Finally, appellants’ broad reference to “structural differences which must be interpreted in conjunction with the specification as required by Section 112, 6th para.” does not specify the error in the rejection, including any specific limitations in the rejected claim which are not described in the Koch patent, as required by 37 CFR § 1.192(c)(8)(C)(iii). The language in appellants’ brief is nothing more than a vague boilerplate reference to the fact that means-plus-function language as addressed in the sixth paragraph of 35 U.S.C. § 112 is contained in claim 11, as distinguished from the method language of claim 7. As set forth in 37 CFR §

1.192(c)(7), “[m]erely pointing out differences in what the claims cover is not an argument as to why the claims are separately patentable.” In that claim 11 recites four separate means-plus-function limitations and appellants’ brief⁷ failed to specify which such limitations in claim 11 are not met by Koch, much less point out specifically what structure described in appellants’ specification corresponds to the specific means-plus-function limitation⁸ allegedly not met by Koch, appellants have in effect failed to make any separate argument as to why claim 11 is patentable apart from claims 1 and 7.⁹ Appellants’ implication on page 12 of the request for rehearing that appellants have not been given fair notice of the basis of the examiner’s rejection of claim 11, with particular regard to the means-plus-function language therein, is both unconvincing and disingenuous, inasmuch as the examiner’s treatment of the structure addressed by the means-plus-function limitations, albeit not explicitly referring to the means-plus-function

⁷ We also note that even appellants’ request for rehearing does not specify which means-plus-function limitations are not met by Koch.

⁸ Mere reference to substantially the entirety of the description of the preferred embodiment sheds absolutely no light on which claim limitation appellants are alleging is not met by the applied prior art.

⁹ Cf. *In re Baxter Travenol Labs*, 952 F.2d 388, 391, 21 USPQ2d 1281, 1285 (Fed. Cir. 1991) (“It is not the function of this court to examine the claims in greater detail than argued by an appellant, looking for nonobvious distinctions over the prior art.”); *In re Wiseman*, 596 F.2d 1019, 1022, 201 USPQ 658, 661 (CCPA 1979) (arguments must first be presented to the Board).

limitations, on page 6 of the answer¹⁰, was far more detailed than appellants' continued vague reference to 35 U.S.C. § 112, sixth paragraph.

For the foregoing reasons, appellants' request for rehearing fails to persuade us of any error in our earlier decision to affirm the rejection of claims 1, 2, 7, 8, 11, 12, 14 and 15 as anticipated by Koch. Thus, we make no modification to that portion of our earlier decision.

The rejection based on Angel

Turning next to the rejection of claims 1 and 12 as being anticipated by Angel, appellants reiterate their position that the Board has "failed to give due weight to the fuel injection nozzle expressly recited in claim 1" (request, page 14). We remain unpersuaded of any error on our part in this regard for the reasons stated supra. As set forth on page 15 of our decision, "claim 1 does not even positively recite a fuel nozzle, much less require any particular location of other recited elements relative thereto."

Appellants' argument that "the portion of the centerbody 42 illustrated in Angel upstream of the swirlers 26, 28 is clearly not a 'fuel injection nozzle' as that term is used in Appellants' claims; or as disclosed in Appellants' specification; or as used in Angel itself" (request, page 14) is a new argument which was not made in the brief and is thus

¹⁰ It cannot reasonably be argued that it is not clear from the examiner's statements on page 6 of the answer that the examiner considers the claimed "means for injecting fuel ..." to be met by the nozzle 27 of Koch, the claimed "means for firstly swirling ..." to be met by the "first swirl vanes 18," the claimed "means for secondly swirling ..." to be met by the "second swirl vanes 14" and the "means for discharging a mixture ... into the combustor" to be met by the outlet portion of the "tubular body 1, 4." It is worthy of note that appellants have still not set forth any arguments as to why these structures of Koch are not the same as or equivalent to the structure disclosed in appellants' specification which corresponds to these means limitations.

untimely and, hence, will not be considered at this point upon rehearing. See Schreiber, 128 F.3d at 1479, 44 USPQ2d at 1433 and Kroekel, 803 F.2d at 708, 231 USPQ at 642-43. See also Hindersinn, 177 USPQ at 80 and Harvey, 163 USPQ at 573. Moreover, in that claim 1 does not positively recite a fuel injection nozzle, any such argument is not commensurate with the scope of claim 1.¹¹

For the foregoing reasons, we are unpersuaded by appellants' request for rehearing that we erred in affirming the rejection of claims 1 and 12 as anticipated by Angel. Thus, we decline to make any modification to that portion of our earlier decision.

The rejection based on Dooley

As for the rejection of claim 7, and claims 8, 9 and 14 which depend therefrom, as being anticipated by Dooley, appellants' argument that this panel overlooked the recitation in the preamble of claim 7 of a "tubular swirl cup" (request, page 15) is well taken. As we pointed out on page 16 of our earlier decision, Dooley does not disclose a tubular body. It follows that the subject matter of claim 7 cannot be anticipated by Dooley. Accordingly, we hereby modify our earlier decision by changing the affirmance of the rejection of claim 7, as well as claims 8, 9 and 14 which depend from claim 7, to a reversal of that rejection.

We acknowledge appellants' solicitation on page 18 of their request for rehearing that the Board provide an explicit statement in accordance with 37 CFR § 1.196(c) as to

¹¹ It is well established that limitations not appearing in the claims cannot be relied upon for patentability. In re Self, 671 F.2d 1344, 1348, 213 USPQ 1, 5 (CCPA 1982).

how the claims might be amended to overcome the prior art rejections which we have not reversed (i.e., the rejections of claims 1, 2, 7, 8, 11, 12, 14 and 15 as being anticipated by Koch and of claims 1 and 12 as being anticipated by Angel). However, we do not find any such recommendation appropriate in this case and thus decline to do so.

CONCLUSION

It should be apparent from the foregoing discussion that appellants' request for rehearing has persuaded us of no error in our earlier decision to affirm the rejections of claims 1, 2, 7, 8, 11, 12, 14 and 15 as being anticipated by Koch and of claims 1 and 12 as being anticipated by Angel. In light of the argument in appellants' request with respect to the rejection of claims 7, 8, 9 and 14 as being anticipated by Dooley, however, we have changed our affirmance of that rejection to a reversal of that rejection.

In summary, the rejections under 35 U.S.C. § 102 of claims 1, 2, 7, 8, 11, 12, 14 and 15 as being anticipated by Koch and of claims 1 and 12 as being anticipated by Angel remain affirmed and the rejection of claims 7, 8, 9 and 14 as being anticipated by Dooley is reversed.

GRANTED-IN-PART

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